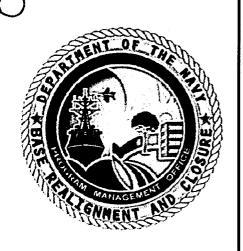
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EXHIBIT 10



Final

Record of Decision for Parcel C

Hunters Point Shipyard San Francisco, California

September 30, 2010

Prepared by:

Department of the Navy Base Realignment and Closure Program Management Office West San Diego, California

Prepared under:

Naval Facilities Engineering Command Contract Number N62473-07-D-3213 **Delivery Order 029**

Public Summary: Final Record of Decision for Parcel C, Hunters Point Shipyard, San Francisco, California, September 30, 2010

The Department of Navy has prepared this final record of decision (ROD) to address remaining contamination at Parcel C at Hunters Point Shipyard in San Francisco, California. The remedial action selected in this ROD is necessary to protect the public health, welfare, and the environment from actual or potential releases of contaminants from this parcel. The selected remedial action for Parcel C addresses metals (especially arsenic, lead, zinc and manganese), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOC), polychlorinated biphenyls (PCB), and pesticides in soil, VOCs, PAHs and metals (especially chromium VI and zinc) in groundwater, and radionuclides in structures (such as buildings) and in soil.

In 2009, the Navy divided the former Parcel C into two new parcels: UC-2 and C. One overall remedy was selected for Parcels UC-2 and C. The Navy considered the following remedial alternatives for contaminants in soil: (1) no action; (2) institutional controls (IC) and maintained landscaping; (3) ICs, limited excavation and off-site disposal; (4) ICs and covers; and (5) a combination of ICs, covers, excavation, soil vapor extraction (SVE) and disposal. The Navy considered the following remedial alternatives for contaminants in groundwater: (1) no action; (2) long-term monitoring and ICs; (3) in situ treatment of VOCs and metals using biological compounds or zero-valent iron (ZVI), monitored natural attenuation (MNA) and ICs; and (4) in situ treatment of VOCs and metals using biological compounds plume-wide and ZVI, MNA and ICs. The Navy considered the following remedial alternatives for radiologically impacted structures (buildings, storm drains and sanitary sewers) and the soil associated with these structures: (1) no action; and (2) surveying radiologically impacted areas that may include structures and former building sites, decontaminating (and demolishing if necessary) buildings, excavating storm drain and sanitary sewer lines and soils in impacted areas, decontamination or removal of structures below Building 205 (pump house) and screening, separating, and disposing of radioactive sources and contaminated excavated soil at an off-site, low-level radioactive waste facility. The selected remedy for Parcel C is Alternative S-5 for soil; Alternative GW-3B for groundwater; and Alternative R-2 for radiologically impacted structures (buildings, storm drains and sanitary sewers) and the soil associated with these structures. Implementation of the remedy at Parcel C will consist of excavation and off-site disposal, SVE. durable covers, and ICs to address soil contamination; treatment of VOCs with ZVI or a biological substrate, MNA, and ICs to address groundwater contamination; and decontamination of buildings, removal of storm drains and sewer lines, decontamination or removal of structures below Building 205, and excavation of soil to address radiologically impacted structures and soil.

Information Repositories: A complete copy of the "Final Record of Decision for Parcel C" dated September 30, 2010, is available to community members at:

San Francisco Main Library 100 Larkin Street Government Information Center, 5th Floor San Francisco, CA 94102 Phone: (415) 557-4500 Anna E. Waden Bayview Library 5075 Third Street San Francisco, CA 94124 Phone: (415) 355-5757

The report is also available to community members on request to the Navy. For more information about environmental investigation and cleanup at Hunters Point Shipyard, contact Robert Hunt, remedial project manager for the Navy, at:

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This public summary represents information presented in the document listed below.

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This public summary represents information presented in the document listed below.

Public Summary:

Draft Final Record of Decision for Parcel C, Hunters Point Shipyard, San Francisco, California, August 13, 2010

The Department of Navy has prepared this draft final record of decision (ROD) to address remaining contamination at Parcel C at Hunters Point Shipyard in San Francisco, California. The remedial action selected in this ROD is necessary to protect the public health, welfare, and the environment from actual or potential releases of contaminants from this parcel. The selected remedial action for Parcel C addresses metals (especially arsenic, lead, zinc and manganese), polycyclic aromatic hydrocarbons (PAH), volatile organic compounds (VOC), polychlorinated biphenyls (PCB), and pesticides in soil, VOCs, PAHs and metals (especially chromium VI and zinc) in groundwater, and radionuclides in structures (such as buildings) and in soil.

In 2009, the Navy divided the former Parcel C into two new parcels: UC-2 and C. One overall remedy was selected for Parcels UC-2 and C. The Navy considered the following remedial alternatives for contaminants in soil: (1) no action; (2) institutional controls (IC) and maintained landscaping; (3) ICs, limited excavation and off-site disposal; (4) ICs and covers; and (5) a combination of ICs, covers, excavation, soil vapor extraction (SVE) and disposal. The Navy considered the following remedial alternatives for contaminants in groundwater: (1) no action; (2) long-term monitoring and ICs; (3) in situ treatment of VOCs and metals using biological compounds or zero-valent iron (ZVI), monitored natural attenuation (MNA) and ICs; and (4) in situ treatment of VOCs and metals using biological compounds plume-wide and ZVI, MNA and ICs. The Navy considered the following remedial alternatives for radiologically impacted structures (buildings, storm drains and sanitary sewers) and the soil associated with these structures: (1) no action; and (2) surveying radiologically impacted areas that may include structures and former building sites, decontaminating (and demolishing if necessary) buildings, excavating storm drain and sanitary sewer lines and soils in impacted areas, decontamination or removal of structures below Building 205 (pump house) and screening, separating, and disposing of radioactive sources and contaminated excavated soil at an off-site, low-level radioactive waste facility. The selected remedy for Parcel C is Alternative S-5 for soil; Alternative GW-3B for groundwater; and Alternative R-2 for radiologically impacted structures (buildings, storm drains and sanitary sewers) and the soil associated with these structures. Implementation of the remedy at Parcel C will consist of excavation and off-site disposal, SVE, durable covers, and ICs to address soil contamination; treatment of VOCs with ZVI or a biological substrate, MNA, and ICs to address groundwater contamination; and decontamination of buildings, removal of storm drains and sewer lines, decontamination or removal of structures below Building 205, and excavation of soil to address radiologically impacted structures and soil.

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The report is also available to community members on request to the Navy. For more information about environmental investigation and cleanup at Hunters Point Shipyard, contact Robert Hunt, remedial project manager for the Navy, at:

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This public summary represents information presented in the document listed below.

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- 1 Applicable or Relevant and Appropriate Requirements
- 2 Responsiveness Summary
- 3 References (Reference Documents Provided on CD Only)
- 4 Administrative Record

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ACRONYMS AND ABBREVIATIONS

μg/L Micrograms per liter

§ Section

ARAR Applicable or relevant and appropriate requirement

ARIC Area requiring institutional controls

BCT BRAC Cleanup Team
bgs Below ground surface
BHC Benzene hexachloride

BRAC Base Realignment and Closure

CAA Corrective action area

CCSF City and County of San Francisco

CERCLA Comprehensive Environmental Response, Compensation, and Liability Act

CFR Code of Federal Regulations

COC Chemical of concern CSM Conceptual site model

cy Cubic yard

DNAPL Dense non-aqueous phase liquid

dpm Disintegrations per minute

DTSC Department of Toxic Substances Control

ELCR Excess lifetime cancer risk

EPA U.S. Environmental Protection Agency

FFA Federal Facility Agreement

FS Feasibility study

F-WBZ Bedrock water-bearing zone

GRA General response action

HGAL Hunters Point groundwater ambient level

HHRA Human health risk assessment

HI Hazard index

HPAL Hunters Point ambient level HPS Hunters Point Shipyard

HRA Historical Radiological Assessment

IC Institutional control IR Installation Restoration

LUC RD Land use control remedial design

ACRONYMS AND ABBREVIATIONS (Continued)

MCL Maximum contaminant level mg/kg Milligrams per kilogram

millirem One thousandth of a rem (10⁻³)
MNA Monitored natural attenuation
MOA Memorandum of Agreement

mrem/yr Millirems per year

NA Not available

Navy Department of the Navy

NCP National Oil and Hazardous Substances Pollution Contingency Plan

ND Not detected

NPL National Priorities List

NRDL Naval Radiological Defense Laboratory

O&M Operation and maintenance

OSWER Office of Solid Waste and Emergency Response

PA Preliminary assessment

PAH Polycyclic aromatic hydrocarbon

PCB Polychlorinated biphenyl

PCE Tetrachloroethene
pCi/g Picocuries per gram
pCi/L Picocuries per liter

PQL Practical quantitation limit

RACR Removal action completion report

RAO Remedial action objective RBC Risk-based concentration

RD Remedial design

RI Remedial investigation

RME Reasonable maximum exposure

RMP Risk management plan
RMR Risk management review
ROD Record of Decision

RU Remedial unit

SARA Superfund Amendments and Reauthorization Act

SFPUC San Francisco Public Utility Commission

SI Site inspection

SVE Soil vapor extraction

SVOC Semivolatile organic compound

SWC Surface water criterion

ACRONYMS AND ABBREVIATIONS (Continued)

TCE Trichloroethene

TCRA Time-critical removal action TPH Total petroleum hydrocarbon

UST Underground storage tank

UWMP Urban Water Management Plan

VOC Volatile organic compound

Water Board San Francisco Bay Regional Water Quality Control Board

ZVI Zero-valent iron

1. DECLARATION

This Record of Decision (ROD) presents the selected remedy for Parcel C at Hunters Point Shipyard (HPS) in San Francisco, California. HPS was included on the National Priorities List (NPL) in 1989 (U.S. Environmental Protection Agency [EPA] ID: CA1170090087). The remedy was selected in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 (Title 42 *United States Code* Section [§] 9601, et seq.), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) (Title 40 *Code of Federal Regulations* [CFR] Part 300). This decision is based on information contained in the administrative record (Attachment 4) for the site. Information not specifically summarized in this ROD or its references but contained in the administrative record has been considered and is relevant to the selection of the remedy at Parcel C. Thus, the ROD is based on and relies on the entire administrative record file.

The Department of the Navy (Navy) and EPA jointly selected the remedy for Parcel C. The California Department of Toxic Substances Control (DTSC) and the San Francisco Bay Regional Water Quality Control Board (Water Board) concur on the remedy for Parcel C. The Navy, as the lead federal agency, provides funding under the Base Realignment and Closure (BRAC) program for site cleanups at HPS. The Federal Facility Agreement (FFA) for HPS documents how the Navy intends to meet and implement CERCLA in partnership with EPA, DTSC, and the Water Board.

Parcel C is one of six parcels (Parcels A through F) originally designated for environmental restoration. In 1997 and 2002, the boundaries of Parcels B and C were redefined, and Installation Restoration (IR) 06 (2002) and IR-25 (1997) were moved from Parcel B to Parcel C. In 2008, the Navy divided the former Parcel C into two new parcels: Parcel C and Parcel UC-2. Parcel UC-2 is not part of this ROD. Long-term uses in specified areas within Parcel C identified in the Hunters Point Shipyard Redevelopment Plan (July 14, 1997) include uses that are educational/cultural, maritime/industrial, mixed use (residential and industrial), open space, and research and development.

Environmental investigations began at Parcel C in 1984. A Draft Final Remedial Investigation (RI) Report for Parcel C was completed in 1997; the Draft Final RI for Parcel B (covers IR-06 and IR-25) was completed in 1996. The revised Final Feasibility Study (FS) Report for Parcel C was completed in 2008. This ROD documents the final remedial action selected for Parcel C and does not include or affect any other sites at HPS.

¹ Bold blue text identifies detailed site information available in the Administrative Record and listed in the References Table (Attachment 3). This ROD is also available on CD, whereby bold blue text serves as a hyperlink to reference information. The hyperlink will open a text box at the top of the screen. A blue box surrounds applicable information in the hyperlink. To the extent that inconsistencies may be or seem evident between the referenced information attached to the ROD via hyperlinks and the information in the basic ROD itself, the language in the basic ROD takes precedence.

1.1 SELECTED REMEDY

The CERCLA remedial action selected in this ROD is necessary to protect the public health, welfare, and the environment from actual or potential releases of contaminants from the site. The remedial action for Parcel C addresses metals, polycyclic aromatic hydrocarbons (PAH), other semivolatile organic compounds (SVOC), volatile organic compounds (VOC), polychlorinated biphenyls (PCB), and pesticides in soil; and radionuclides in structures (such as buildings) and in soil. The remedial action also addresses VOCs, PAHs, and other SVOCs found in groundwater in both the A- and B-aquifers, and metals and pesticides found in groundwater in the B-aquifer. The remedy consists of excavation and off-site disposal, soil vapor extraction (SVE), durable covers, and institutional controls (IC) to address soil contamination; treatment of VOCs with zero-valent iron (ZVI) or a biological substrate, monitored natural attenuation (MNA), and ICs to address groundwater contamination; and decontamination of buildings, removal of storm drains and sewer lines, decontamination or removal of structures below Building 205, and excavation of soil to address radiologically impacted structures and soil.

The remedial action is protective of human health and the environment, complies with federal and state statutes and regulations that are applicable or relevant and appropriate to the remedial action, and is cost-effective. The selected remedial action (1) uses permanent solutions and alternative treatment (or resource recovery) technologies to the maximum extent practicable and (2) satisfies the statutory preference for remedies employing treatment that reduces the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element. A statutory review will be conducted within 5 years after the ROD is signed to ensure that the remedy is, or will be, protective of human health and the environment.

1.2 DATA CERTIFICATION CHECKLIST

The following information is included in Section 2 of this ROD. Additional information can be found in the administrative record file for this site:

- Chemicals of concern (COC) and their concentrations (Sections 2.3 and 2.5).
- Baseline risk represented by the COC (Section 2.5).
- Remediation goals established for COCs and the basis for these goals (Sections 2.5 and 2.7).
- Principal threat wastes (Section 2.6).
- Current and reasonably anticipated future land use assumptions, and current and potential future beneficial uses of groundwater (Section 2.4).
- Potential land and groundwater use that will be available at the site as a result of the selected remedy (Section 2.9.3).
- Estimated capital costs, annual operation and maintenance (O&M), and total present-worth costs; discount rate; and the number of years over which the remedy cost estimate is projected (Table 6).
- Key factors that led to selecting the remedy (for example, a description of how the selected remedy provides the best balance of tradeoffs with respect to the balancing and modifying criteria, highlighting criteria key to the decision) (Section 2.9.1).

1.3 AUTHORIZING SIGNATURES

This signature sheet documents the Navy's and EPA's co-selection of the remedy in this ROD. This signature sheet also documents the State of California's (DTSC and Water Board) concurrence with this ROD.

Mr.	Keith	S.	Fon	man

Base Realignment and Closure Environmental Coordinator Base Realignment and Closure Program Management

Date

Office West

Department of the Navy

Mr Michael M. Montgomery

Assistant Director of Federal Facilities and Site Cleanup Branch, Region 9 U.S. Environmental Protection Agency

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Date

Dr Ryan K Miya

San Francisco Peninsula Team Leader

California Environmental Protection Agency

Department of Toxic Substances Control

9/20/10

Date

Mr. Bruce H. Wolfe

Executive Officer

California Environmental Protection Agency

San Francisco Bay Regional Water Quality Control Board

Date

Modifying Criteria

State Acceptance. State involvement has been solicited throughout the CERCLA process. The State of California concurs with the Navy's selected remedial alternatives.

Community Acceptance. Community acceptance is evaluated based on comments received from the public during the public comment period for the proposed plan. The proposed plan was presented to the community and discussed during a public meeting on February 11, 2009. Comments were also gathered during the public comment period from January 29 through February 27, 2009. Attachment 2, the responsiveness summary, of this ROD addresses the public's comments and concerns about the selected remedial alternatives at Parcel C.

2.9 SELECTED REMEDY

2.9.1 Rationale for Selected Remedy

The selected remedy for Parcel C is Alternative S-5 (excavation, disposal, SVE, covers, and ICs) for soil; Alternative GW-3B (treatment, MNA, and ICs) for groundwater; and Alternative R-2 (survey, decontamination, excavation, disposal, and release) for radiologically impacted structures and soil. The selected remedy provides the best balance of tradeoffs with respect to the nine criteria. The remedy for soil meets the RAOs by excavating and disposing of soils contaminated with arsenic, lead, and organic compounds such as chlorinated VOCs and PAHs at concentrations that exceed remediation goals, thus removing the source of contamination. Additionally, the entire parcel would be covered to cut off potential exposure pathways to arsenic, manganese, and any remaining COCs in soils. The remedy for groundwater meets the RAOs by treating groundwater to reduce concentrations of VOCs and metals to below remediation goals, thus removing the source of contamination. Monitoring would be implemented as needed for up to 30 years to confirm the treatment was successful. The remedy for radiologically impacted sites meets the RAOs by identifying and decontaminating any impacted structures. Additionally, remaining contaminated materials, storm drains and sewers, and soils would be excavated and disposed of off site, thereby removing the source of contamination.

ICs — including restrictive covenants regulating restricted land use, restricted activities, and prohibited activities — would be implemented to prevent or minimize exposure to areas where potential unacceptable risk is posed by COCs in soil and groundwater. ICs would remain in place until the concentrations of hazardous substances in soil and groundwater are at such levels that allow for unrestricted use and exposure.

2.9.2 Description of Selected Remedy

The selected remedy for soil consists of removing soil in selected areas where COCs exceed remediation goals, and disposing of excavated soil at an off-site facility. Excavations are planned at 32 areas within Parcel C, with a total removal of approximately 42,000 cy of soil. Soil in the areas selected for excavation is contaminated by arsenic, lead, and organic chemicals such as chlorinated VOCs and PAHs at concentrations that exceed remediation goals based on the planned reuse; excavations to remove zinc would focus on redevelopment block

20A, where zinc is likely present as a result of industrial activities. Excavations to remove arsenic are also included where concentrations significantly exceed the HPAL and are outside concentration ranges found in naturally occurring ubiquitous metals in the same geologic formations in the San Francisco area. The only excavations proposed beneath existing buildings would be at Building 251, where the foundation was disturbed during waste consolidation, and at Building 241 to remove benzene after radiological removal activities. The planned excavation 20A-1 on Figure 10 is not listed as an excavation beneath an existing building because it is located under an extended roof overhang area not under the building. The only excavations proposed to depths greater than 10 feet bgs would occur if light nonaqueous phase liquid is encountered, or at areas previously excavated to bedrock during removal activities, which include TCRA excavations 290301, 290302 (west of Building 203), and 290601 (south of Building 203). Open excavations would be backfilled with imported clean soil, and an appropriate durable cover would be installed.

In areas where total petroleum hydrocarbons (TPH) constituents are commingled with CERCLA contaminants in soil, the TPH constituents would be also cleaned up under the Navy's CERCLA program at Parcel C. For areas where TPH constituents in soil are not commingled with CERCLA contaminants or TPH remains after CERCLA cleanup is complete, the TPH cleanup would be conducted under the Navy's TPH Corrective Action Program for Parcel C, and would not be addressed by the Navy's CERCLA program.

SVE would be implemented as a source reduction measure to address VOC-contaminated soil; VOCs that migrate through the subsurface to indoor air (vapor intrusion) can pose an inhalation risk. The SVE areas bound soil sampling locations where VOCs were detected at concentrations above remediation goals and where soil characteristics are appropriate for SVE; SVE is also included to address soil vapor above the groundwater plumes. SVE would not be used as the sole remedy in areas where VOCs are commingled with chemicals that do not readily volatilize.

Across all of Parcel C, durable covers would be applied as physical barriers to cut off potential exposure to ubiquitous metals in soil. Existing asphalt and concrete surfaces (repaired as necessary to be durable) and buildings would act as covers. The type of new covers installed would be consistent with the redevelopment plan (for example, soil covers may be used for open space areas or asphalt for industrial areas). The cover design, including details on how the cover would be finished at the "improved shoreline," would be provided in the RD and would include plans for inspection and maintenance. Covers would be maintained to contain the soil at the "improved shoreline." Backfill for soil covers would be analyzed to confirm that the material does not contain chemicals above Parcel C remediation goals or contain greater than 0.25 percent asbestos. Modification of covers will be governed by the Risk Management Plan discussed below and its terms will be enforced by the regulatory agencies. Based on aerial photographs of Parcel C, an estimated 2 acres would be covered with soil and maintained landscaping, 35 acres would be covered with new asphalt, and 35.5 acres of existing asphalt and concrete surfaces (including buildings) would be used and repaired, as necessary. As a result of the meeting on May 19, 2009, attended by the Navy, EPA, DTSC, and CCSF, and results of the 2010 soil data gap investigation₍₄₉₎, five existing buildings have been identified where further action would be needed if the building foundation is removed. The footprint of Buildings 134, 214, 231, 272, and 281 that serve as covers are identified on Figure 10 as areas

requiring institutional controls (ARIC). The Navy concluded that the soil beneath these buildings had been sufficiently characterized based on the result of the building-by-building evaluation of existing data under the buildings and the Navy's data gap investigation completed in 2010. The Navy further concluded that the building foundation cover is sufficiently protective of human health at Parcel C until such time as the building foundation would be removed or altered. Further action would be needed if the building foundations are removed or altered.

The selected remedy for groundwater consists of actively treating VOCs in groundwater using ZVI or an injected biological substrate to destroy the VOCs in the groundwater plumes at RU-C1, RU-C2, RU-C4, and RU-C5. ZVI would be used to target hotspot areas where concentrations of PCE exceed 15 μ g/L and of TCE exceed 110 μ g/L. Areas targeted for bioremediation have concentrations of select VOCs that exceed the remediation goal by factors ranging from 10 to 50. The treatment would also minimize migration of metals in the groundwater plumes within Parcel C (see Figure 7) and discharge of these metals into the bay at levels that exceed remediation goals. Groundwater monitoring would occur in and around the remediation areas and also in downgradient locations, as necessary. The locations of monitoring points and the monitoring frequency would be specified in the RD. The RD would use current information on the plume extent and concentration to select the actual injection parameters. The monitoring plan would be flexible to allow modifications as data are obtained.

At areas where TPH constituents are commingled with CERCLA contaminants in groundwater, the TPH constituents would be also cleaned up under the Navy's CERCLA program at Parcel C. At areas where TPH constituents in groundwater are not commingled with CERCLA contaminants or TPH remains after CERCLA cleanup is complete, the TPH cleanup would be conducted under the Navy's TPH Corrective Action Program for Parcel C, and would not be addressed by the Navy's CERCLA program.

Soil gas surveys would be conducted in consultation with regulatory agencies for the following purposes:

- Conduct a soil gas survey with regulatory approval in focused areas where concerns continue about residual VOCs in soil or where VOCs are present in groundwater.
- Use results of the soil gas survey to identify COCs for which risk-based numeric action levels for VOCs in soil gas would be established (based on a cumulative excess cancer risk of 10⁻⁶).
- Once risk-based, numeric action levels are established, compare the results of the soil gas survey to the action levels to evaluate the need for remedial action or the reduction or retention of the ARIC for VOCs.
- At the groundwater remediation areas, conduct a soil gas survey following completion
 of the remedial action for groundwater (after the areas have re-equilibrated). The
 results of the survey would be used to evaluate potential vapor intrusion risks,
 determine whether the ARIC for VOCs can be reduced, and evaluate the need for
 additional remedial activities.

The selected remedy for radiologically impacted soil and structures consists of surveying radiologically impacted buildings and former building sites with documented radiological impacts for unrestricted release. Unrestricted release means that a property can be used for any residential or commercial purpose once regulatory requirements have been met. Decontamination would be performed and buildings would be dismantled if necessary. Radiologically impacted storm drains and sanitary sewer lines throughout Parcel C would be removed and disposed of off site while implementing appropriate dust control measures (50). The following buildings at Parcel C were designated as radiologically impacted: Buildings 203, 205 and discharge tunnel, 211, 214, 224, 241, 253, 271, and 272.

The Navy would address the cleanup for radiologically impacted soil and structures at Parcel C under its ongoing Hunters Point Shipyard radiological removal action program. A RACR would summarize all building, storm drain, and sanitary sewer final status survey reports and survey unit package reports. After the agencies concur on the radiological RACR for Parcel C, unrestricted release would be granted. Should unrestricted release not be achieved, further remedial actions would occur to meet remedial goals established in the ROD.

Each radiologically impacted site would be investigated through the CERCLA process. If the final report of the site investigation is approved by the stakeholders and the site is determined to require no further action, the classification of "radiologically impacted" may be removed. The survey and removals would occur before any covers are installed as part of Alternative S-5. Buildings, former building sites, and excavated areas would be surveyed after cleanup is completed to ensure that no residual radioactivity is present at levels above the residential remediation goals. Excavated soil, building materials, and drain material from radiologically impacted sites would be screened, and radioactive sources and contaminated soil would be removed and disposed of at an off-site, low-level radioactive waste facility.

ICs₍₅₁₎ will be implemented to prevent or minimize exposure to areas where potential unacceptable risk is posed by COCs in soil and groundwater. ICs are legal and administrative mechanisms used to implement land use restrictions that are used to limit the exposure of future landowners or users of the property to hazardous substances present on the property, and to ensure the integrity of the remedial action. ICs are required on a property where the selected remedial cleanup levels result in contamination remaining at the property above levels that allow for unlimited use and unrestricted exposure. ICs will be maintained until the concentrations of hazardous substances in soil and groundwater are at such levels to allow for unrestricted use and exposure. Implementation of ICs includes requirements for monitoring and inspections, and reporting to ensure compliance with land use or activity restrictions.

The Navy has concluded that it will rely on proprietary controls in the form of environmental restrictive covenants as provided in the "Memorandum of Agreement between the United States Department of the Navy and the California Department of Toxic Substances Control" and attached covenant models (hereinafter referred to as the "Navy/DTSC MOA").

More specifically, land use and activity restrictions will be incorporated into two separate legal instruments as provided in the Navy/DTSC MOA:

- 1. Restrictive covenants included in one or more Quitclaim Deeds from the Navy to the property recipient.
- 2. Restrictive covenants included in one or more "Covenant(s) to Restrict Use of Property" entered into by the Navy and DTSC as provided in the Navy/DTSC MOA and consistent with the substantive provisions of *California Code of* Regulations Title 22 § 67391.1.

The "Covenant(s) to Restrict Use of Property" will incorporate the land use restrictions into environmental restrictive covenants that run with the land and that are enforceable by DTSC, and EPA, as a third party beneficiary, against future transferees and users. The Quitclaim Deed(s) will include the identical land use and activity restrictions in environmental restrictive covenants that run with the land and that will be enforceable by the Navy against future transferees.

The activity restrictions in the "Covenant(s) to Restrict Use of Property" and Quitclaim Deed(s) shall be addressed in the land use control remedial design (LUC RD) report that would be reviewed and approved by the FFA signatories. The LUC RD shall be referenced in the applicable Covenant(s) to Restrict Use of Property and Quitclaim Deed(s). The LUC RD shall be submitted in accordance with the FFA schedule. The LUC RD shall specify soil and groundwater management procedures for compliance with the remedy selected in the Parcel C The LUC RD shall identify the roles of local, state, and federal government in administering the LUC RD and shall include, but not be limited to, procedures for any necessary sampling and analysis requirements, worker health and safety requirements, and any necessary site-specific construction or use approvals that may be required.

Land use restrictions will be applied to specified portions of the facility and described in findings of suitability to transfer, findings of suitability for early transfer, "Covenant(s) to Restrict Use of Property" between the Navy and DTSC, and any Quitclaim Deed(s) conveying real property containing Parcel C at HPS.

A risk management plan (RMP) may be prepared by the CCSF and approved by the FFA signatories that may set forth certain requirements and protocols for implementing the activity restrictions specified in the ROD.

<u>Access</u>

The Deed and Covenant shall provide that the Navy and FFA signatories and their respective officials, agents, employees, contractors, and subcontractors shall have the right to enter upon HPS Parcel C for purposes consistent with the Navy IR Program or the FFA.

Implementation

The Navy shall address and describe IC implementation and maintenance actions including periodic inspections and reporting in the preliminary and final LUC RD reports to be developed and submitted to the FFA signatories for review and approval pursuant to the FFA (see "Navy Principles and Procedures for Specifying, Monitoring and Enforcement of Land Use Controls and Other Post-ROD Actions" attached to January 16, 2004, Department of Defense memorandum titled "Comprehensive Environmental Response, Compensation and

Liability Act [CERCLA] Record of Decision [ROD] and Post-ROD Policy"). The preliminary and final RD reports are primary documents as provided in Section 7.3 of the FFA.

The Navy is responsible for implementing, maintaining, reporting on, and enforcing land use controls. Although the Navy may later transfer these procedural responsibilities to another party by contract, property transfer agreement, or through other means, the Navy shall retain ultimate responsibility for remedy integrity.

Activity Restrictions that Apply throughout Parcel C

The following sections describe the IC objectives to be achieved through activity restrictions throughout Parcel C, as shown on Figure 2, to ensure that any necessary measures to protect human health and the environment and the integrity of the remedy have been undertaken.

Restricted Activities

The following restricted activities throughout HPS Parcel C must be conducted in accordance with the "Covenant(s) to Restrict Use of Property," Quitclaim Deed(s), the Parcel C RMP, the LUC RD report, and if required, any other work plan or document approved in accordance with these referenced documents, and must be further reviewed and approved by the FFA signatories:

- a. "Land disturbing activity," which includes but is not limited to: (1) excavation of soil, (2) construction of roads, utilities, facilities, structures, and appurtenances of any kind, (3) demolition or removal of "hardscape" (for example, concrete roadways, parking lots, foundations, and sidewalks), (4) any activity that involves movement of soil to the surface from below the surface of the land, and (5) any other activity that causes or facilitates the movement of known contaminated groundwater.
- b. Alteration, disturbance, or removal of any component of a response or cleanup action (including but not limited to pump-and-treat facilities and soil cap/containment systems); groundwater extraction, injection, and monitoring wells and associated piping and equipment; or associated utilities.
- c. Extraction of groundwater and installation of new groundwater wells, with the exception of construction, operation, and maintenance responses or remedial actions as required or necessary under the CERCLA remedy.
- d. Removal of or damage to security features (for example, locks on monitoring wells, survey monuments, fencing, signs, or monitoring equipment and associated pipelines and appurtenances).

Prohibited Activities

The following activities are prohibited throughout HPS Parcel C:

- 1. Growing vegetables, fruits, or any edible items in native soil for human consumption
- 2. Use of groundwater

Proposed Activity Restrictions Relating to VOC and SVOC Vapors at Specific Locations within Parcel C

Any proposed construction of enclosed structures must be approved in accordance with the "Covenant(s) to Restrict Use of the Property," Quitclaim Deed(s), LUC RD, and the RMP with approval of the FFA signatories prior to the conduct of such activity within the ARIC for VOC and SVOC vapors to ensure that the risks of potential exposures to VOC and SVOC vapors are reduced to acceptable levels that are adequately protective of human health. The reduction in potential risk can be achieved through engineering controls or other design alternatives that meet the specifications set forth in the ROD, RD reports, LUC RD report, and the RMP. Initially, the ARIC will include all of Parcel C. The ARIC for VOC and SVOC vapors may be modified by the FFA signatories as the soil contamination areas and groundwater contaminant plumes that are producing unacceptable vapor inhalation risks are reduced over time or in response to further soil, vapor, and groundwater sampling and analysis for VOCs and SVOCs that establishes that areas now included in the ARIC for VOC and SVOC vapors do not pose unacceptable potential exposure risk to VOC and SVOC vapors.

Additional Land Use Restrictions for Areas Designated for Open Space, Educational/Cultural, and Industrial Reuse

The following restricted land uses for property areas designated for open space, educational/cultural, and industrial land uses in the San Francisco Redevelopment Agency's reuse plan must be reviewed and approved by the FFA signatories in accordance with the "Covenants to Restrict Use of the Property," Quitclaim Deed(s), LUC RD, and the RMP for each parcel prior to use of the property for any of the following restricted uses:

- a. A residence, including any mobile home or factory built housing, constructed or installed for use as residential human habitation,
- b. A hospital for humans,
- c. A school for persons under 21 years of age, or
- d. A daycare facility for children.

2.9.3 Expected Outcomes of the Selected Remedy

The expected outcome for soil is that SVE would remove from soil VOCs that exceed remediation goals, and excavation would remove contaminated soil that exceeds remediation goals for arsenic, lead, and organic compounds such as chlorinated VOCs and PAHs. Remediation goals for soil are presented in Table 3. Residual risks from these and other COCs would be mitigated through use of durable covers and access restrictions to restrict exposure. After implementation of the remedy, the property would be suitable for the uses specified in the redevelopment plan (July 14, 1997).

The groundwater remedy is expected to achieve remediation goals presented in Table 4 via active treatment of VOCs in groundwater to restore the aquifer quality by reducing or immobilizing the mass of contaminants of concern in groundwater to levels that do not pose a threat to human health through the inhalation exposure pathway. Although treatment of groundwater is expected to reduce VOC and SVOC vapors released from groundwater,

ARICs for vapor intrusion may be needed at some locations at Parcel C. Furthermore, the Navy intends to permanently prohibit use of groundwater at Parcel C through implementation of ICs.

The remedy for radiological contamination includes surveys, decontamination, excavation, and off-site disposal. Removal of contaminants from radiologically impacted buildings and former building sites with documented radiological impacts, and removal of potential radiologically impacted sanitary and storm sewers and soils are expected to result in a reduction of the potential risks to levels below remediation goals presented in Table 5 associated with exposure to radionuclides of concern. The HRA classified buildings (203, 205 and discharge tunnel, 211, 214, 224, 241, 253, 271, and 272), storm drains, and sanitary sewers as "radiologically impacted" in Parcel C. Each of the radiologically impacted sites would be investigated through the CERCLA process. If the final report of the site investigation is approved by the stakeholders and the site is determined to require no further action, the classification of "radiologically impacted" may be removed.

The timeframe for achieving the uses specified in the redevelopment plan by implementing this remedy could vary from 3 to 10 years. This timeframe could be significantly impacted by funding and speed of regulatory concurrence on plans and completion of remediation.

2.9.4 Statutory Determinations

In accordance with the NCP, the selected remedy meets the following statutory determinations.

- **Protection of Human Health and the Environment** The selected remedy for soil would protect human health and the environment through SVE, excavation of contaminated soil, prevention or minimization of exposure to remaining COCs by installing durable covers, and implementation of ICs. The selected remedy for groundwater would provide long-term protection by reducing concentrations of VOCs through treatment.
- Compliance with ARARs CERCLA § 121(d)(1) states that remedial actions on CERCLA sites must attain (or the decision document must justify the waiver of) any federal or more stringent state environmental standards, requirements, criteria, or limitations that are determined to be legally applicable or relevant and appropriate. Chemical-specific ARARs are health- or risk-based numerical values or methods that, when applied to site-specific conditions, establish the acceptable amount or concentration of a chemical that may be found in, or discharged to, the environment. Location-specific ARARs are restrictions on the concentrations of hazardous substances or on conducting activities solely because they are in specific locations. Specific locations include floodplains, wetlands, historic places, and sensitive ecosystems or habitats. Action-specific ARARs are technology- or activity-based requirements or limitations for remedial activities. These requirements are triggered by the particular remedial activities conducted at the site. The remedial alternatives selected by the Navy would meet all chemical-, location-, and action-specific ARARs. The ARARs that would be met by the preferred alternatives are summarized in Attachment 1.

- **Cost-Effectiveness** The selected remedy would provide overall protectiveness proportional to its costs and is therefore considered cost-effective.
- Utilization of Permanent Solution and Alternative Treatment Technologies or Resource Recovery Technologies to the Maximum Extent Practicable Because soil contamination is widely dispersed across the installation, the Navy has concluded that a containment remedy, combined with excavation of more highly contaminated soil, represents the maximum extent to which permanent solutions can be used in a cost-effective manner. The in situ treatment of contaminated groundwater meets the preference for alternative treatment technologies. The selected remedy is expected to be permanent and effective in light of the anticipated land use.
- **Preference for Treatment as a Principal Element** The selected remedy for soil does not satisfy the statutory preference for treatment as a principal element of the remedy because no cost-effective means of treating the large quantity of low-level soil contamination is available, and the quantities of soil to be excavated cannot be treated in a cost-effective manner. The soil remedy would not reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants through treatment of the contaminated soil that would remain on site, but would provide for the off-site disposal of more highly contaminated soil at a facility — which would minimize the potential for those hazardous substances to migrate or otherwise pose a threat. The selected remedy for groundwater satisfies the statutory preference for treatment as a principal element of the remedy; that is, it would reduce the toxicity, mobility, or volume of hazardous substances, pollutants, or contaminants as a principal element through treatment. The selected remedy for radiologically impacted soil and remediation of radiologically impacted building materials does not include treatment as a principal element of the remedy because no technology is available to reduce the toxicity or volume of radionuclides in contaminated soil or building materials.
- **Five-Year Review Requirements** –The selected remedy would result in hazardous substances, pollutants, or contaminants remaining on site above levels that allow for unrestricted use. As a result, a statutory review would address Parcel C in accordance with the schedule established for HPS site-wide 5-year review after the remedial action is initiated to ensure the remedy is protective of human health and the environment

2.10 COMMUNITY PARTICIPATION

Community participation at HPS includes public meetings, public information repositories, newsletters and fact sheets, public notices, and an IR Program website. The Community Involvement Plan for HPS provides detailed information on community participation for the IR Program, and documents interests, issues, and concerns raised by the community regarding ongoing investigation and cleanup activities at HPS. The Navy held a community meeting on February 2, 2010, to solicit community input on revising the Community Involvement Plan for HPS.

Starting in January 2010, the Navy is conducting bi-monthly Community Technical Meetings to discuss the technical aspects of CERCLA milestone documents with the community, with participation from the BCT. Documents and relevant information relied on in the remedy selection process will be made available for public review in the public information repositories listed below or on the **IR Program website**(52).

San Francisco Main Library 100 Larkin Street Government Information Center, 5th Floor San Francisco, California 94102 Phone: (415) 557-4500 Anna E. Waden Bayview Library 5075 Third Street San Francisco, California 94124 Phone: (415) 355-5757

For access to the administrative record or additional information on the IR Program, contact:

Mr. Keith Forman Hunters Point Shipyard BRAC Environmental Coordinator Base Realignment and Closure Program Management Office West 1455 Frazee Road, Suite 900 San Diego, California 92108-4310

Phone: (619) 532-0913

e-mail: keith.s.forman@navy.mil

In accordance with CERCLA §§ 113 and 117, the Navy provided a public comment period from January 29, 2009, to February 27, 2009, for the proposed remedial action described in the Proposed Plan for Parcels C and UC-2. A public meeting to present the Proposed Plan was held from 6:00 to 8:00 p.m. on February 11, 2009. Public notice of the meeting and availability of documents was placed in the *San Francisco Examiner* on January 29, 2009.

3. RESPONSIVENESS SUMMARY

The responsiveness summary is the third component of a ROD; its purpose is to summarize information regarding the views of the public and support agency on both the remedial alternatives and general concerns about the site submitted during the public comment period. It documents in the record how public comments were integrated into the decision-making process. The participants in the public meeting, held on February 11, 2009, included community members and representatives of the Navy, EPA, DTSC, and the Water Board. Questions and concerns received during the meeting were addressed at the meeting and are documented in the meeting transcript. Responses to comments provided at the meeting and received during the public comment period by the Navy, EPA, DTSC, or the Water Board are included in the responsiveness summary (Attachment 2).

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ATTACHMENT 2
RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard (Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Spoken Comments by Michael McGowan received at the public meeting held February 11, 2009

	Response
First, could you please clarify in the document the risk scenarios and the description of residential and industrial and construction worker risk, how that relates to the eventual use of the property, and especially explain if the remedy is going to make all of the area suitable for residential use or are there some areas that won't be suitable for residential use once the remedy is put in place.	The human health risk scenarios and risk to potential residential, industrial, and construction worker receptors are described in the human health risk sections of the Final Parcel C Feasibility Study (SulTech 2008). Each human health risk scenario corresponds to the city's future reuse scenario for the redevelopment block. The applicable remedial goal for an area is based on the future reuse scenario for the redevelopment block. Based on the future reuse of each redevelopment block, Parcel C will be remediated to residential, industrial, or recreational cleanup goals.
Second, as I understand, Parcel C is going to be an early—transfer parcel. So I'd like the Navy to please explain how the continuity and the consistency in the remediation that's being described here is going to be ensured or carried on once the property is transferred over and some other entity actually does the remedy.	The remedy for Parcel C will be finalized in the remedial design for Parcel C after the Parcel C Record of Decision (ROD) is signed. The Navy anticipates that the property will be conveyed in accordance with the "early transfer" provisions of Section 120(h)(3)(C) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and that the Navy will enter into an agreement with the City so that the City will be responsible for carrying out the remedy for Parcel C under continued regulatory agency oversight.
And my last comment is: The radiological work appears to be on its own track, separate from the soil and groundwater remediation. So I would just request that there be a little more discussion of how that's going to be coordinated with the soil and groundwater remediation. Especially if there's an early transfer, does the Navy still maintain responsibility for the radiological work, or will that also be transferred over.	The Navy is continuing to address radiological cleanup under CERCLA. The Navy decided to address radiologically impacted buildings, sites, storm drains and sanitary sewers at Parcel C pursuant to a CERCLA time-critical removal action (TCRA). Although the TCRA may not be completed by the time the ROD is signed, the TCRA is intended to achieve cleanup goals that are identical to the remedial action objectives (RAO) identified in the ROD. In the event that the TCRA does not achieve the cleanup goals, cleanup will continue in accordance with the remedial action selected in the ROD until the RAOs are achieved. The Navy will coordinate the radiological surveys and removals with remediation work for Parcel C so that the radiological surveys and removals are completed
	construction worker risk, how that relates to the eventual use of the property, and especially explain if the remedy is going to make all of the area suitable for residential use or are there some areas that won't be suitable for residential use once the remedy is put in place. Second, as I understand, Parcel C is going to be an early—transfer parcel. So I'd like the Navy to please explain how the continuity and the consistency in the remediation that's being described here is going to be ensured or carried on once the property is transferred over and some other entity actually does the remedy. And my last comment is: The radiological work appears to be on its own track, separate from the soil and groundwater remediation. So I would just request that there be a little more discussion of how that's going to be coordinated with the soil and groundwater remediation. Especially if there's an early transfer, does the Navy still maintain responsibility for the

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Comment Number	Comment	Response
1	I would like to know how one acquires the information that Mr. McGowan just cited and you know, as a follow-on issue. And also, I am still waiting for the information on early—transfer provisions as they differ from regular transfer process. I've been waiting probably for six months now for that information. I was told several times it would be forwarded by email, and I haven't seen anything yet. I have yet to look up the construction report details per IR-07 and 18 from Parcel B, and I'm looking and waiting for whatever detail may be available for the engineering reports that are supposed to be delivered on prospective construction for for example, in Parcel D.	The Final Feasibility Study Report for Parcel C (SulTech 2008) is available for review at the public information repositories. Information on the early transfer process also is available by contacting the U.S. Environmental Protection Agency (EPA) and through the Navy website: http://www.bracpmo.navy.mil/library.aspx This ROD is for Parcel C only. For information on Installation Restoration (IR) sites in other parcels at Hunters Point Shipyard, please visit the public information repositories or contact Mr. Keith Forman, Navy Base Realignment and Closure (BRAC) Environmental Coordinator.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Spoken Comments by Tom Lanphar, California Department of Toxic Substances Control (DTSC), at the public meeting held February 11, 2009

Comment Number	Comment	Response
1	Also, I'd like to point out that Parcel C is one of the more complicated and contaminated areas of the base. And the remedy that is proposed includes soil vapor extraction for VOCs [volatile organic compounds]; it includes groundwater treatment through biological or chemical additives; it includes soil removal; and it includes a cover. I'd like to mention that DTSC strongly supports the placement of the cover as part of the soil remedy. I'd also like to thank the Navy for the work and the struggle that we all at the BCT established and came up with this Proposed Plan on Parcel C.	Comment noted.
2	And finally, in the radiological cleanup and the radiological remediation goals, I would like that the ROD is clear that the radiological cleanup goals are based on residential cleanup and that the table that's often in the RODs not include construction worker as remedial action goals. That's not part of our remedial action goals as construction workers. I would like clarity in the ROD.	All radiologically impacted soils will be remediated according to residential remediation goals. The radiological remediation goals for construction workers were deleted from the ROD.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Written Con	Written Comments by Tom Lanphar, California DTSC, received February 27, 2009 by email						
Comment Number	Comment	Response					
1	Page 16, Soil (Alternative S-5)	The Navy, EPA, DTSC, City and County of San Francisco, and Lennar held					
	The Parcel C Proposed Plan preferred alternative for soil proposes leaving in place soil exceeding soil remediation goals for metals, PAHs and PCBs. These contaminants are not associated with the ubiquitous metals associated with fill material quarried from local rock and soil. The proposed plans states:	a meeting on May 27, 2009, to discuss the adequacy of chemical analytical data for CERCLA chemicals of concern (COC) in soil under buildings that were identified in the Final Feasibility Study for Parcel C as areas requiring a soil management plan (Buildings 134, 231, 272, 275, and 281), as well as additional buildings in Parcel C (Buildings 203, 205, 217, 241, 251, 253, and 258). After this meeting, the Navy also evaluated the footprint of Buildings					
	"Elevated levels of metals, PAHs and PCB[s] are located in five areas under portions of buildings 134, 231, 272, 275, and 281. These areas are currently covered by concrete slabs which serve as remedial covers. Demolition of the slabs and excavation into the underlying soil must be approved as provided under the "Restricted Activities" provisions of Insert 1."	211 and 214 based on comments received on May 27, 2009. As a result, the Navy agreed to conduct a soil data gap investigation within the footprint of Buildings 134, 203, 214, and 231 to collect additional soil samples for chemical analysis for specific COCs. The soil sampling was completed in February 2010. Chemical analytical results of the data gap investigation indicated that only polycyclic aromatic hydrocarbons (PAH) and lead at one sample location within Building 214, and lead at one sample location within					
	soil in place under existing covers. The reference in the quoted text to the need for future approvals under the "Restricted Activities" provisions of Insert 1 does not provide any additional requirements or protections than are otherwise required for all of Parcel C. Further, "Restricted Activities" does not require that future land owners excavate and dispose of contaminated soil exceeding remediation goals at these five locations. The proposal	Building 231 exceeded Parcel C soil remediation goals. The result that exceeded remediation goals within Building 214 was subsequently bound by step-out samples collected outside of the building. As a result of this investigation, Building 214 will be added to the list of buildings that will not further action if the building foundation is removed.					
		In addition based on discussion between the Navy, EPA, DTSC, City and County of San Francisco, and Lennar on May 27, 2009 (see Figure 10 in the ROD), the following planned excavations were expanded (KCH JV 2010 [future document]):					
		 Excavation 20A-1 (Building 258): Expand excavation area to include removal of adjacent sample locations 280601W3D (zinc) and 280601W3C (PAHs). 					
	excavated." DTSC understands that these buildings are slated for demolition during the redevelopment of Hunters Point. Excavation of this soil after demolition is a practical and protective soil	Excavation 24-4 (outside Building 272): Expand excavation area to include removal of adjacent sample location 280301W9B (manganese).					

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Written Comments by Tom Langhar, California DTSC, received February 27, 2009 by email

Witten Con	itten Comments by Tom Lanphar, California DTSC, received February 27, 2009 by email					
Comment Number	Comment	Response				
1 (Cont'd))	remedial action. In order to obtain DTSC concurrence on the Parcel C Record of Decision (ROD), DTSC requires that the Parcel C ROD include excavation and disposal of soil exceeding remediation goals in these five areas. The excavation and disposal; however, can occur after early transfer of Parcel C and after the buildings are demolished.	The Navy will summarize the results of the soil data gap investigation in a forthcoming investigation summary report (KCH JV 2010 [future document]). The Navy concluded that the soil beneath these buildings was sufficiently characterized based on the result of the building-by-building evaluation of existing data under the buildings, and the Navy's data gap investigation completed in 2010. The Navy further concluded that the building foundation cover is sufficiently protective of human health at Parcel C until such time as the building foundation is removed or altered. Further action will be needed if the building foundations are removed or altered. As recommended by DTSC, the Navy will identify in the Parcel C ROD all areas of soil contamination that will need further action if the building foundation is removed. The footprints of Buildings 134, 214, 231, 272n and 281 will be identified as areas requiring institutional controls (see Figure 10 in the ROD). In most cases, remediation of these areas will be scheduled after the overlying building is demolished.				
2	Table 7, Preliminary Remediation Goals for Radionuclides In the Parcel C ROD, please do not include Construction Worker remediation goals. Soil must meet residential remediation goals in order for the Navy to obtain "free release" of soil areas. DTSC's understanding is that there is no application of Construction Worker remedial goals in the preferred radiological remedy.	All radiologically impacted soils will be remediated according to residential remediation goals. The radiological remediation goals for construction workers were deleted from the ROD.				

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

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Written Comments by California Department of Public Health (CDPH), received February 27, 2009 by e-mail					
Comment Number	Comment	Response			
1	Table 7, Addition of the following footnote "a" to the Soil Resident column in the table: "All radiologically impacted soils in this parcel will be remediated according to Residential Remediation Goals."	A note was added in Table 5, Remediation Goals for Radionuclides, in the ROD to state, "All radiologically impacted soils will be remediated according to residential remediation goals."			
2	The California Department of Public Health (CDPH) believes that California Code of Regulations (Cal. Code Regs.) tit. 17 section 30256 meets the criteria for a potential state chemical-specific ARAR and therefore should be included in the list of ARARs for this parcel. The Navy has previously indicated that Cal. Code Regs. tit 17 section 30256 cannot be an ARAR as it is primarily procedural in nature. However, this regulation is also substantive, at least in part. In particular, subdivision (k) does provide a standard for clean up of radioactive material. The text of Cal. Code Regs. tit. 17 30256(k) is as follows: "(k) Specific licenses shall be terminated by written notice to the licensee when the Department determines that: (1) Radioactive material has been properly disposed; (2) Reasonable effort has been made to eliminate residual radioactive contamination, if present; and (3) A radiation survey has been performed which demonstrates that the premises are suitable for release for unrestricted use; or other information submitted by the licensee is sufficient to demonstrate that the premises are suitable for release for unrestricted use." THE REGULATION IS ALSO MORE STRINGENT THAN ANY OTHER RADIOLOGIC-SPECIFIC ARAR.	The ARARs for Parcel C were not changed as a result of this comment. This response addresses comments on the Proposed Plan for Parcel C and UC-2 submitted by CDPH on February 27, 2010 regarding Cal. Code Regs. Title 17 Section 30256 as well as CDPH's May 17, 2010 follow-up comments on the portion of the Navy's draft Parcel C ROD Responsiveness Summary addressing the same issues. The Navy and EPA do not agree that Cal. Code Regs. Title 17 Section 30256 satisfies CERCLA and NCP criteria for a State chemical-specific ARAR. It is not an ARAR for the Parcel C CERCLA remedy because it is not: 1) substantive, 2) either "applicable" or "relevant and appropriate", or 3) more stringent than federal standards. A State law or regulation must satisfy all of these criteria in order to meet CERCLA and NCP requirements for State ARARs and does not qualify as a State ARAR if any one of them is not satisfied. The Navy has prepared, in consultation with EPA counsel, the following specific input regarding Cal. Code Regs. Title 17 Section 30256. Furthermore, the Navy and EPA do not believe that this regulation is pertinent to the Parcel C remedy because the radionuclides of concern in Parcel C are being cleaned up to risk-based cleanup levels accepted by EPA and the State of California and removed for off-site disposal ("free release") pursuant to an ongoing CERCLA removal action and this ROD.			

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Written Comments by California Department of Public Health (CDPH), received February 27, 2009 by e-mail

Comment Number	Comment	Response
2 (Cont'd))	In addition, while the title of the regulation is "Vacating Installations: Records and Notices," the regulation meets the criteria of "relevant and appropriate." The Department is aware that the regulation does not provide a numerical standard, however, a state regulation need not contain a numerical standard in order to be considered an ARAR. Furthermore, the CDPH has been ordered to use that regulation by a California judge who held that the "the standard in California for decommissioning and termination of licenses for radioactive sites is found in Cal. Code Regs. tit. 17 section 30256" (Committee to Bridge the Gap v. Bonta et. al, Sacramento County Superior Court, Case No 01 CS01445, "Order Requiring Supplemental Return to Amended Peremptory Writ", August 27, 2002.)	a. Most of The State Regulation is Not Substantive The Navy and EPA continue to assert that Cal. Code Regs. Title 17 Section 30256 is not substantive. These regulations describe the process by which CDPH makes its decisions to terminate a specific license and, therefore, read in that context the three criteria of Subsection 30256 (k) should be characterized as procedural rather than substantive. The Navy does not have a state license administered by CDPH nor were any of the activities subject to state license requirements (see discussion below re "applicability"). Note, however, that the objectives of subsection 30256(k) will be achieved because the remedy selected for Parcel C will cleanup radionuclide to risk-based cleanup levels accepted by EPA and the State of California ("free release") pursuant to an ongoing removal action and this ROD. Even if the criteria were considered substantive, the NCP (40 Code of Federal Regulations [CFR] § 300.400[g]) specifies that substantive provisions of promulgated regulatory requirements must be either "applicable" or "relevant and appropriate" to qualify as ARARs for CERCLA cleanup actions. b. The State Regulation is not Applicable.
		The Navy and EPA continue to assert that Cal. Code Regs. Title 17 Section 30256 is not "applicable" because these regulations by their express terms apply to facilities licensed by the state of California that are undergoing a license termination process. The remediation of Parcel C under CERCLA is not part of a decommissioning or license termination procedure nor has any state license ever been issued because California laws and regulations regarding possession of radioactive materials do not apply to land possessed by the federal government.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Written Comments by	California Danartmant	of Dublic Hoolth (CDDH)	wassiyad Eshuusu	, 27 2000 by a mail
i written Comments by t	Camornia Debarrment	OF PUBLIC REALTH (CDPH)	i. receiveo rebruari	v zz. zuug ov e-man

Comment Number	Comment	Response
2 (Cont'd)		The CDPH website acknowledges that CDPH does not regulate DoD sites:
		"While owned by the Federal government, DoD facilities are not under the radiological control of the State of California, but when property is to be transferred to parties other than U.S. government agencies, California's radiation regulations are then enforceable. Therefore decommissioning standards used for radioactive materials licenses in California are applied to the clean-up efforts at the military facilities." (http://www.cdph.ca.gov/HealthInfo/environhealth/Pages/DOD.aspx).
		CDPH suggests in its comments that the regulations should be considered "applicable" ARARs, because, although they are not applicable now, they would, or might, become applicable if the property were conveyed to a non-federal entity. The Navy and EPA disagree and assert that CERCLA requires the decision maker to evaluate ARARs at the time the remedy is selected; that these regulations are not applicable ARARs for the reasons noted above; and that the Navy will still own the site at the time the remedy is selected. Prospective future changes in jurisdiction cannot serve as a basis for identifying applicable ARARs. CDPH currently lacks subject matter jurisdiction over the property and may never obtain subject matter jurisdiction if the Navy retains title or transfers the property to another federal department or agency. Therefore, the Navy does not consider the regulation to be an "applicable" ARAR.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Comment Number	Comment	Response
2		c. The State Regulation is not "Relevant and Appropriate".
(Cont'd)		The Navy and EPA continue to assert that Cal. Code Regs. Title 17 Section 30256 is not "relevant and appropriate" because standards for decommissioning a licensed facility are not "appropriate" for Parcel C because they do not address a set of circumstances similar to the remediation of Parcel C. The NCP specifies a series of factors to be used to compare the proposed CERCLA action with potential ARARs to determine if a requirement is both "relevant" and "appropriate" (40 CFR §300.400[g][2]). The activity addressed by the CDPH regulation can be distinguished from the selected remedial action for Parcel C on a number of bases, including the medium addressed, type of action and activity regulated, and type of place regulated (See 40 CFR Subsections 300.400(g)(2)(ii), (iv), and (vi))). More specifically, the license termination process described in the regulations appears to be intended to reach the conclusion that the facility is suitable for release for unrestricted use. This requirement is one among a detailed set of requirements for the "cradle to grave" management of licensed radiological material that were never applied to Parcel C. The radionuclides addressed in Parcel C were not subject to such regulatory controls when they were used by the Navy or when they were released into the environment, thus the CERCLA respons must address very different issues (e.g., very high volume of potentially impacted soil, low concentrations of radionuclides in soil, high cost of removal, etc.).

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

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Written Comments by California Department of Public Health (CDPH), received February 27, 2009 by e-mail

Comment Number	Comment	Response
2 (Cont'd)		CDPH appears to have focused their comments upon perceived similarities of purpose of the State regulations and the CERCLA response action pursuant to the factor 40 CFR Section 300.400(g)(2)(i) rather than the three factors at 40 CFR Subsections 300.400(g)(2)(ii), (iv), and (vi) that are identified in the previous paragraph. The Navy and EPA determinations under those three factors are sufficient in and of themselves to support the conclusion that the regulation is not "relevant and appropriate". There is no requirement in Subsection 300.400(g)(2) of CERCLA that the Navy or EPA make specific findings for each of the eight factors listed in Subsection 300.400(g)(2)(i) through (viii) for each potential State ARAR. The criteria are to be examined "where pertinent" with pertinence "depending, in part, on whether a requirement addresses a chemical, location, or action."
		Furthermore, the Navy and EPA do not agree with CDPH's assertions about the similarity of purpose. Although CERCLA response action and the state regulations share the broad goal of protecting human health and the environment, they operate in a very different manner and address different site conditions.
		CDPH further asserts that the threshold for determining under State law if a license or exemption is required when a licensed entity pursues a license termination is similar to the questions of whether a license or exemption is required when an entity takes possession of a site that has been contaminated by the previous owner. This is a general procedural and jurisdictional issue under State law and is unrelated to the question as to whether or not these specific regulations are "relevant and appropriate" under CERCLA and the NCP.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

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Comment Number	Comment	Response
2		d. The State Regulation is Not More Stringent
(Cont'd)		The Navy and EPA continue to assert that Cal. Code Regs. Title 17 Subsection 30256(k) is not more stringent than risk-based cleanup levels because the standard requiring "reasonable effort to eliminate residual radioactive contamination" is by its terms flexible and cannot be assumed to require a more stringent cleanup than the selected CERCLA remedial action. CDPH's May 17, 2010 comments on the draft Responsiveness Summary asserts that the regulation provides for cleanup to background. The regulation does not require cleanup to background conditions and elimination of residual contamination; furthermore, it can be interpreted to require a "reasonable effort" to eliminate residual contamination regardless of risk. Cal. Code Regs. Title 17 Subsection 30256(k) neither contains a numerical standard nor describes a narrative standard which would inform the question of whether (or what quantity of) radiological material can remain at the site. If there were a means to derive an objective standard from Subsection 30256(k), that standard has not been identified by the state. Without an identified objective standard, there can be no basis for asserting that the requirement is more stringent than the CERCLA risk-based standards for Parcel C.
		In summary, CDPH has provided no evidence that their regulations are more stringent than federal ARARs and CERCLA risk-based cleanup levels.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

(Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Written Comments by Amy D. Brownell, City and County of San Francisco and Lennar, received February 27, 2009 by email

Comment Number	Comment	Response
1	We would like to point out for the record, that once the engineering controls and institutional controls are properly installed and maintained the current design of the proposed remedies will cut off pathways for: a) contact with soil contaminants and b) inhalation of indoor VOC vapors and this means that the entire property will be health protective for all types of uses.	The proposed remedial alternatives are specific to the reuse identified for each area. Future residents would be protected in areas currently identified for industrial or recreational reuse only by consistent enforcement of the activity restrictions described by the proposed institutional controls (IC). For example, the area requiring institutional controls (ARIC) for vapor intrusion would need to be maintained in areas currently identified as open space (unless the ARIC could be modified by new data for soil gas). The Navy believes that the proposed remedy would result in an environment that would not pose health risks for future residents. However, future reuse would not necessarily be unrestricted as a result. The following text was included on the second page of the Proposed Plan to note the general protectiveness of the planned revised remedy: "The alternatives described in this Proposed Plan, including operation and maintenance and ICs, will be protective of human health and the environment and will meet the specified cleanup objectives."
2	Soil gas RAOs should be included in the ROD. If the establishment of chemical-specific soil gas remediation goals is delayed until after the ROD, then the cost for this evaluation and regulatory process needs to be added to the ROD.	The Navy has established remediation goals for indoor inhalation of vapor from groundwater. Numeric action levels for volatile organic compounds (VOC) in soil gas will not be established in the ROD, but rather may be set using information used to identify chemicals of concern (COC) from soil gas surveys that may be conducted in the future. The Navy is preparing a draft approach for developing soil gas action levels for vapor intrusion exposure for review by the BRAC Cleanup Team (BCT).
		The ROD was not changed as a result of this comment.
3	Page 5, Previous Removal Actions and Current Conditions, Paragraph 2, second sentence: Should be referring to SVE at Building 134 not 123, which is on Parcel B.	The reviewer is correct that the treatability study for soil vapor extraction (SVE) in Parcel C was conducted at Building 134 and not Building 123. Building 123 is not mentioned in the Parcel C ROD.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

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Written Comments by Amy D. Brownell, City and County of San Francisco and Lennar, received February 27, 2009 by email

Comment Number	Comment	Response
4	Page 16, Preferred Alternatives, fourth paragraph: This paragraph discusses elevated levels of metals, PAHs and PCBs under five buildings. The paragraph states "These areas are currently covered by concrete slabs which serve as remedial covers. Demolition of the slabs and excavation into underlying soil must be approved as provided under "Restricted Activities" "Because these five areas are specifically mentioned in the Proposed Plan, the implication is that these areas are different than the rest of the parcel that also requires approval for any excavation under "Restricted Activities". The statement leaves it unclear what will be required to obtain approval for excavation under these five buildings. If the intent is these areas will require at least sampling and	Please see the response to DTSC written comment 1 (Tom Lanphar).
	possibly removal and disposal of contaminated soil, then the ROD should make that clear.	
5	Page 18, Groundwater (Alternative GW-3B) – The proposed plan states "Soil gas surveys will be conducted following completion of the groundwater remedies and the data will be used to refine the vapor intrusion risk calculations." This is a valid statement for areas that contain contaminated groundwater that will undergo groundwater treatment. However, there are other soil gas surveys that will be needed on Parcel C. Since the entire parcel is an ARIC for VOC vapors (as stated on page 23) the only method to remove the restrictions is to either conduct soil gas sampling or get regulatory approval to allow a review of historical information to verify the lack of soil vapor hazards. In addition to your sentence above, please include the following language in the Parcel C ROD that was negotiated for the Parcel B ROD:	 The paragraph in question was replaced as follows in Section 2.9.2 Description of Selected Remedy, in the ROD: "Soil gas surveys will be conducted for the following purposes: "To evaluate potential vapor intrusion risks, "To identify COCs for which risk-based numeric action levels for VOCs in soil gas would be established (based on a cumulative risk of 10⁻⁶), "To identify where the initial areas requiring institutional controls (ARIC) for VOCs would be retained and where they would be released, and "To evaluate the need for additional remedial action to remove ARICs."

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard (Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)

Written Comments by Amy D. Brownell, City and County of San Francisco and Lennar, received February 27, 2009 by email

Comment Number	Comment	Response
5 (Cont'd)	A soil gas survey may be conducted in the future for the following purposes:	
	To evaluate potential vapor intrusion risks,	
	 To identify COCs for which risk-based numeric action levels for VOCs in soil gas would be established (based on a cumulative risk of 10-6), 	
	 To identify where the initial areas requiring institutional controls (ARIC) for VOCs would be retained and where they would be released, and 	
	To evaluate the need for additional remedial action in order to remove ARICs.	

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard

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Written Comment from Ronald Young, Young Laboratories, received by mail

Comment Number	Comment	Response
1	"Why do you not dig canals all thru Parcel C then place bridges and requisite infrastructure so as to make a neighborhood with shops and restaurants much like Vinice [sic], Italy."	The Navy's Proposed Plan addresses environmental cleanup of existing conditions at Parcels UC-2 and C. Please direct questions or comments about redevelopment of Parcels UC-2 and C to the City and County of San Francisco.

Proposed Plan for Parcels C and UC-2, Hunters Point Shipyard (Responses are for Parcel C only. Responses for Parcel UC-2 were provided separately in the Parcel UC-2 Record of Decision.)			
Written Com	ment from Juan Monsanto received by mail		
Comment Number	Comment	Response	
1	"Good morning. Please change my address to 1814 Castro Street, San Francisco, CA 94131, rather than 1815 Egbert (?). Thanks, Juan."	The change was made to the mailing list.	

(Re	Proposed Plan for Parcels C and Uesponses are for Parcel C only. Responses for Parcel UC-2 were	
Written Comn	nent from Bob Craft Sr., Craft Press, Inc., received by mail	
Comment Number	Comment	Response
1	"Please include me in your bid list for printing this publication, as we have presses that produce these booklets (mail pieces) at a	The comment does not address the content of the proposed plan. No response is provided.

REFERENCES

KCH JV. 2010. "Draft Soil Data Gap Investigation Report for Soil Sampling under Buildings, Parcel C, Hunters Point Shipyard, San Francisco, California." (future document).

SulTech. 2008. "Final Feasibility Study Report for Parcel C, Hunters Point Shipyard, San Francisco, California." July 31.